Cerecopithecus aethiops (SIVagm), SIV of *Macaca mulatta* (SIVmac), SIV of Pan troglodytes (SIVcpz), SIV of *Cerecopithecus mitis* (SIVsyk), SIV of *Papio sphinx* (SIVmnd), SIV of *Cercocebus atys* (SIVsm), or SIV of *Macaca nemestrina* (SIVmne), surface envelope or transmembrane envelope protein.

16. (New) The retroviral vector of claim 14, wherein the truncated variant of the transmembrane envelope protein is modified by fusion to the C-terminus or to any other fragment of the transmembrane envelope protein of a murine leukemia virus (MLV) or of any other retrovirus.

17. (New) A method for preparing packaging cells that produce a retroviral vector, the method comprising transfecting cells, with

(i) a psi-negative expression construct comprising the *gag*-genes and the *pol*-genes of murine leukemia virus (MLV);

(ii) a psi-positive expression construct encoding a desired gene product to be transferred; and

(iii) a transcriptional cassette encoding an envelope protein of human immunodeficiency virus (HIV) or simian immunodeficiency virus (SIV);

wherein the transfected packaging cell is able to produce a retroviral vector comprising a viral core of MLV and a virus envelope comprising an envelope protein of HIV or SIV

18. (New) A method for preparing packaging cells that produce a retroviral vector, the method comprising:

obtaining cells of a packaging cell line comprising a *gag*-gene and a *pol*-gene of murine leukemia virus (MLV) and an expression-construct encoding a desired gene product to be transferred; and

transfecting cells of the packaging cell line with a construct comprising a transcriptional cassette encoding an envelope protein of human immunodeficiency virus (HIV) or simian immunodeficiency virus (SIV);

wherein the transfected packaging cell is able to produce a retroviral vector comprising a

viral core of MLV and a virus envelope comprising an envelope protein of HIV or SIV.

19. (New) The method of claim 18, whereby the cells of the packaging cell line to be transfected are cells of packaging cell line TELCeB6.

20. (New) The method of claim 17, whereby the expression construct is an *env* expression construct comprising pLβAc/env-Tr712-neo, pRep *Δ16 env*, pRep *Δ7 env*, pRep *Δ0 env*, pRep *Δ7MLV env,* or pRep *Δ0MLV env.*

21. (New) Packaging cells prepared by the method of claim 17.

22. (New) A composition comprising a retroviral vector of claim 13, further comprising a therapeutic or reporter gene or a fragment thereof, wherein said vector mediates the transfer of the therapeutic or reporter gene or fragment thereof into a specific cell type.

23. (New) The composition of claim 22, wherein the specific cell type is CD4-positive cells of mammalian origin.

24. (New) A method of transferring a foreign gene into a specific cell type, the method comprising

obtaining a retroviral vector of claim 13;

inserting into the retroviral vector an mRNA of a foreign gene or a fragment thereof; and

transfecting the specific cell type with the retroviral vector to transfer the foreign gene into the specific cell type.

25. (New) The method of claim 24, wherein the specific cell type is CD4-positive cells of mammalian origin.

26. (New) The method of claim 25, wherein the CD4-positive cells are human cells.

27. (New) The method of claim 24, wherein the foreign gene comprises a therapeutic gene or a reporter gene.

Sub C2 28. (New) A composition comprising a retroviral vector of claim 13, further comprising a foreign gene or a fragment thereof, wherein said vector mediates the transfer of the foreign gene or fragment thereof into a CD4-positive cell to genetically modify the cell.

29. (New) A composition comprising a retroviral vector of claim 13, further comprising a foreign gene or a fragment thereof encoding an active agent, wherein said vector mediates the transfer of the foreign gene or fragment thereof into a specific type of cell to enable the cell to express the active agent.

Sub C3 30. (New) A method of treating a human immunodeficiency virus (HIV) infection in an individual; the method comprising

obtaining a retroviral vector of claim 13;

inserting into the retroviral vector a foreign HIV-inhibiting gene or a fragment thereof ; and

transfecting CD4-positive cells of the individual with the retroviral vector to transfer the foreign gene into the CD4-positive cells, thereby treating the HIV infection.

31. (New) A method of treating a genetic disorder in an individual, the method comprising

obtaining a retroviral vector of claim 13;

inserting into the retroviral vector a foreign gene or a fragment thereof encoding an active agent; and

transfecting cells of the individual with the retroviral vector to transfer the foreign gene into the cells to enable the cells to express the active agent, thereby treating the genetic disorder.